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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/685,189	10/06/2000	VOLKER HEINRICH	0240us210	6794

30560 7590 12/17/2002

MAXYGEN, INC.
INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

ANDRES, JANET L

ART UNIT	PAPER NUMBER
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1646

DATE MAILED: 12/17/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/685,189

Applicant(s)

HEINRICHS ET AL.

Examiner

Janet L. Andres

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32,34-36,41,42,44-62,120,121,124-132 and 147-157 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32,34-36,41,42,44-62,120,121,124-132 and 147-157 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

RESPONSE TO AMENDMENT

1. Applicant's amendment filed 25 September 2002 is acknowledged. Claims 32, 34-36, 41, 42, 44-62, 120, 121, 124-132, and 147-157 are pending and under examination in this application.

The text of those sections of Title 35, U.S. Code, not included in this action can be found in a prior office action.

Claim Rejections/Objections Withdrawn

2. The objection to the specification is withdrawn in response to Applicant's amendment.

3. The objection to claims 31-34 is withdrawn in response to Applicant's amendment to claims 32 and 34 and cancellation of claims 31 and 33.

4. The rejection of claims 31 and 37-40 under 35 U.S.C. 103(a) and 35 U.S.C. 102(b) is withdrawn in response to Applicant's cancellation of these claims.

5. The rejection of claims 31, 32, 37, 40, 41, 45-49, 51, 52, 54-63, 105, and 124-132 under 35 U.S.C. 112, first paragraph, as lacking enablement and written description is withdrawn in response to Applicant's amendment to claims 32, 41, 51, and 124-132 and cancellation of claims 31, 37, 40, 63, and 105.

6. The rejection of claims 31, 33, 37-40, 54-62, 120, 121, 124-132, 147, and 148 under 35 U.S.C. 112, second paragraph, as indefinite is withdrawn in response to Applicant's cancellation of claims 31, 33, and 37-40 and amendment to claims 54, 55, 57, 58, 60, 120, 124, 125, 127, 128, 130, and 147.

Claim Rejections Maintained

7. The rejection of claims 32, 34-36, 41, 42, 44-62, 120, 121, 124-132, and 147-157 under 35 U.S.C. 103(a) as unpatentable over Stabinsky and of claims 32, 34-36, 41, 42, 44-53, 60-62, 120, 121, 130, 131, and 147-157 as unpatentable over Blatt et al. is maintained for reasons of record in the office action of paper no. 12.

Applicant states that, to establish a *prima facie* case of obviousness, there must be a suggestion or motivation to modify the references and a reasonable expectation of success, and that the prior art must teach or suggest all of the claim limitations. Applicant argues that it has not been demonstrated with any particularity how one would combine the teachings of Stabinsky or Blatt et al. to arrive at any particular polypeptide claimed by Applicant. Applicant argues that no motivation is provided by the teachings of either Stabinsky or Blatt et al. to select Applicant's claimed sequences and that there is no guidance in these references to indicate which of the possible combinations would have interferon activity.

Applicant's arguments have been fully considered but have not been found to be persuasive. As stated in the previous office action, both Stabinsky and Blatt et al. teach an alignment of known, functional interferon alphas and from this alignment derive a consensus sequence. Applicant's claimed sequences can be readily derived from these teachings by changing selected amino acids in the consensus sequence to amino acids present at the corresponding residues in known, functional interferon alphas. One of ordinary skill could easily envision such altered sequences on viewing table 1 in Blatt et al. or Figure 2 in Stabinsky. Stabinsky and Blatt et al. have presented one possible consensus based on the alignments and

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one of ordinary skill would need only to view the alignment to realize that other variations could be made simply by selecting another amino acid than that selected by Stabinsky or Blatt et al. from the naturally occurring alternatives. It would be obvious to one of ordinary skill to do so because it would be obvious to one of ordinary skill in the biochemical arts that such altered sequences would also be functional; they are derived from combinations of sequences known to be functional. That Stabinsky and Blatt et al. teach one consensus sequence provides the suggestion to make other such sequences: one of ordinary skill could readily envision such alternatives, based on the alignments presented, and would readily expect such alternatives to be functional. Furthermore, as stated in the previous office action, Stabinsky contemplates other variants in column 33, lines 45-47.

Thus it would have been *prima facie* obvious to one of ordinary skill to take the known consensus sequence and change selected to amino acids to one of the other options indicated by the alignment of sequences shown in Figure 2 of Stabinsky and Table 1 of Blatt et al. with the expectation that the resulting polypeptide would function as an interferon alpha.

NO CLAIM IS ALLOWED.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet Andres, Ph.D., whose telephone number is (703) 305-0557. The examiner can normally be reached on Monday through Friday from 8:00 am to 5:30 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler, Ph.D., can be reached at (703) 308-6564. The fax phone number for this group is (703) 872-9306 or (703) 872-9307 for after final communications.

Communications via internet mail regarding this application, other than those under U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to yvonne.eyler@uspto.gov.

All Internet email communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark Office on February 25, 1997 at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Janet Andres, Ph.D.
December 9, 2002


YVONNE EYLER, PH.D.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600